

Foreword

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Alfred Russel Wallace (1823-1913) made an immense contribution to our understanding of the biodiversity and biogeography of Wallacea, New Guinea and indeed the rest of the World. Not only did he independently discover the process of evolution by natural selection, publishing the idea together with Charles Darwin in 1858, but he is regarded as the founding father of evolutionary biogeography thanks to his many seminal publications on the subject, including his books *The Geographical Distribution of Animals* and *Island Life*.

Wallace also made a huge contribution towards documenting the animal fauna of what he called The Malay Archipelago (Malaysia, Singapore, Indonesia and East Timor). He spent nearly 8 years in the region from 1854 to 1862, collecting specimens of insects, birds and other animals for his private collection, selling the “duplicates” to collectors and museums in order to fund his trip. Wallace collected specimens from Peninsular Malaysia across to New Guinea, visiting every important island in the archipelago at least once, and clocking-up about 14000 miles of travel. During his trip he collected an astonishing total of nearly 126000 animal specimens: about 110000 insects, 7500 shells, 8050 bird skins, and 410 mammals and reptiles. They ranged from Orangutans to Birds of Paradise, from land snails to cockroaches, from Birdwing butterflies to tiny parasitic wasps. Remarkably, most of them arrived in England in good condition, an impressive achievement considering the difficult conditions under which he was working, and the complex logistics of shipping fragile specimens back from the remote wild corners of the Malay Archipelago.

Wallace kept about 18% of the specimens that he and his assistants collected, which by the end of his trip amounted to 3000 bird skins of about a 1000 species, at least 20000 beetles and butterflies of about 7000 species, plus some vertebrates and land-shells. When he returned to England he used these to gain insights into evolutionary and biogeographic processes, and published 21 scientific articles in which he described 295 new species: 120 butterflies, 70 beetles and 105 birds. At least 4700 other species were described in about 350 additional publications by leading amateur and professional naturalists based on specimens from Wallace’s private collection and the duplicates his agent Samuel Stevens had sold. About 250 of these were named after him, usually as *wallacii* or *wallacei*.

Wallace’s best known zoological discoveries from the region are perhaps Rajah Brooke’s Birdwing Butterfly (*Trogonoptera brookiana*) from Borneo, Wallace’s Golden Birdwing Butterfly (*Ornithoptera croesus*) from Bacan Island, Indonesia and Wallace’s Standard-Wing Bird of Paradise (*Semioptera wallacei*) from the same island. He also discovered the world’s first gliding frog (Wallace’s Flying Frog, *Rhacophorus nigropalmatus*) in Borneo, and the world’s largest bee (Wallace’s Giant Bee, *Chalicodoma pluto*), on Bacan Island. He collected a total of 212 new bird species (naming about half of them himself), so given that around 10000 bird species are known, this means that he was responsible for discovering 2% of the entire World bird fauna. Not only that, but he was the first Westerner to observe and document the spectacular mating displays (leks) of male Birds of Paradise, and he was probably the first European to eat one (he frequently ate birds after skinning them because he was often short of food).

The bulk of the specimens which Wallace collected are now in the collections of London’s Natural History Museum and the Oxford University Museum, although many other museums in the U.K., Europe, the U.S.A. and Australia also have Wallace material.

This book, the third in the series, continues the monumental task of documenting and naming the organisms found in New Guinea and adjacent regions. Wallace would have thoroughly approved of this endeavour. As he wrote in his 1863 paper “On the physical geography of the Malay Archipelago”: “It is for such inquiries that the modern naturalist collects his materials; it is for this that he still wants to add to the apparently boundless treasures of our national museums, and will never rest satisfied as long as the native country, the geographical distribution, and the amount of variation of any living thing remains imperfectly known. He looks upon every species of animal and plant now living as the individual letters which go to make up one of the volumes of our earth’s history; and, as a few lost letters may make a sentence unintelligible, so the extinction of numerous forms of life which the progress of cultivation invariably entails will necessarily obscure this invaluable record of the past”.